PRINCIPLES FOR ASSESSMENT DESIGN AND USE
TO SUPPORT STUDENT AUTONOMY

Developed by the William and Flora Hewlett Foundation Assessment for Learning Working Group

Preamble
This brief is written with the primary purpose of seeking to influence and shape educational assessment practice. It identifies a series of key issues and invites educators to think about how they might change their practice to address them. One use of this brief is as a resource for school-level study groups seeking to rethink assessment in their school, and with it, curriculum and instructional practices.

A secondary audience is test designers, developers, and vendors. The six principles presented here serve as a road map for redesigning current instruments, for designing new ones that assess additional aspects of human learning and performance, and for linking a range of measures into a system of assessments that offers a more insightful, actionable, and valid perspective on each student. In that sense, the document outlines a validity framework for determining who the consumers of assessment information are and the uses to which the information generated by a system of assessments could be put.

A final audience consists of policy makers and policy influencers. People in these roles at the state level have been presented with an unprecedented opportunity to remake current state testing systems into systems of assessments comprising low stakes and moderate stakes measures in addition to traditionally high stakes tests. They have the opportunity to value formative and interim assessment, classroom-based performance tasks, student self-reports, and a range of less traditional measures. The information gathered from this wider range of sources can be used by students to increase their control over their own learning, thereby becoming better, more competent learners in the process. The state will also have greater insight into how schools are functioning and how to improve them systemically and systematically.

Two key concepts form the bedrock of this brief: student autonomy as learners and assessment that informs student self-knowledge and autonomous learning. The brief offers a distinctive perspective that blends autonomy and assessment and asks the reader to reconsider the role of assessment in students' lives. The goal is to move from assessment providing information that acts upon students to enabling students to act upon information provided to them from a much wider range of measures.

Nothing in this brief is revolutionary in and of itself. Many pay lip service to the ideas presented here, but few have put them into practice at scale. The brief offers some examples of best practices, not for the purpose of suggesting they be directly copied, but to demonstrate what these ideas look like when implemented and to offer some limited proof that the concepts are educationally viable. Students are already doing many of the things described here, such as increasingly taking control of and deciding what they want to learn outside of school. The larger economy and society is already employing many of the assessment practices described in this brief.

Please consider this brief to be an invitation to engage in deep conversation and reflection about the concepts and principles outlined and illustrated herein, and to develop these ideas further as you apply them in practice in ways that make a difference in the lives of students.

Introduction – Why Now?
Around the country, states and communities are responding to the challenge of ensuring that all students are ready for success in next levels of learning, work, and life. "Readiness" means much more than making sure students have been prepared through a specific course of study or are eligible because they have achieved a passing score on certain tests. The world is demanding more knowledge and skills than ever before. Students need to master not only content knowledge at higher levels, but to develop essential skills and dispositions that enable them to identify as a life-long learner, take responsibility for their own growth

and well-being, and thrive within a greater social context. These are outcomes that represent much higher expectations, much deeper levels of learning, and a much more active role for the students themselves. To understand, practice, and demonstrate what they must do to be ready for success, students will need a certain mindset that for the purposes of this paper we call a sense of "autonomy".

Student Autonomy
We use the term "student autonomy" to embrace two related constructs, which, because of the requirements that contemporary society places on life-long and life-wide learning, are important goals to prepare young people for college and careers. (Others may prefer phrases like "self-directed learning", "student ownership of learning", or "student agency" as the primary construct. Regardless, we hope the reader finds the concepts translatable so that the ideas and principles are meaningful.)

Student Agency: According to a recent report from Harvard University, agency is "the capacity and propensity to take purposeful initiative—the opposite of helplessness. Young people with high levels of agency "do not respond passively to their circumstances; they tend to seek meaning and act with purpose to achieve the conditions they desire in their own and others' lives" (Ferguson, Phillips, Rowley & Friedlander 2015, p. 1). Indicators of student agency in school include a sense of efficacy, a growth mindset, a goal-orientation to learning, and higher future aspirations (Ferguson et al., 2015).

Self-Regulated Learning: Self-regulated learning (SRL) is one aspect of the broader skill of self-regulation (NRC, 2012). SRL involves employing strategies such as goal-setting, developing plans to achieve goals, monitoring progress toward goals, and upon reflection adapting learning approaches to move closer to desired goals (e.g., Boekaerts & Cascallar, 2006, Pintrich, 2000, 2004; Zimmerman & Schunk, 2011). SRL applies not only to cognition but also to motivation and overt behavior, for example, removing distractions from a learning situation, effective time-management, and the focused exertion of effort (Nicol & Macfarlane-Dick, 2007).

Equity and Student Autonomy
More compelling than any other challenge or opportunity when we think about college and career readiness is the issue of equity. At a time when our nation is becoming increasingly diverse, access to supports, learning opportunities, and resources that result in the development of skills and dispositions associated with student autonomy are not developed and nurtured in all students. Learners have the right to educational experiences that not only support advancement in school, but also enable continued learning in college and the workplace, productive engagement as a citizen, and permit navigation of systems they will encounter in wider social contexts (e.g., healthcare, personal finance). Therefore, equity considerations demand that, as educators, we are purposeful and intentional about helping all students develop autonomy.

How, then, do educators understand Autonomy as a transferable disposition or mindset, the growth of which can be coached for, learned, and assessed? For all students?

Assessment and Student Autonomy
This paper builds on prior learning in the field to focus on assessment of skills and capacities associated with student autonomy. Assessment in the U.S. plays a prominent role in K-12 education and exerts a range of influences on teaching and learning, including affecting student dispositions and mindsets toward learning. Because of these influences and the importance of student autonomy to learning and life-skills, we offer six principles for the design and use of assessment in support of student autonomy, as part of a broader system of assessments.

What Do We Mean by "A System of Assessments"?
A system of assessments combines a range of measures in a way that results in a more complete and accurate profile of individual students and of schools as a whole (Conley & Darling-Hammond, 2013). Systems of assessments can include statewide summative assessments, with information for policy makers

about districts and schools, as well as much richer locally designed and administered assessments that provide information about how individual students are progressing toward meeting standards.

No single assessment can provide all the information about a school or a student that different audiences need for different purposes. Whether formative or summative, whether for diagnostic purposes or large-scale reporting, assessments should be unbiased and accessible and used in ways that support positive outcomes for students and for instructional quality. Assessments should also be meaningful and engaging to the students themselves as an integral part of the overall learning experience – giving more opportunity for students to determine what they will learn next, how they will learn, and how they will demonstrate their learning.

PRINCIPLES FOR ASSESSMENT

Our premise is this: If systems of assessments are useful to students, valued by students, co-created by students when possible, and used by students, then students are more likely to develop key processes of student autonomy.

Key questions we hope educators will want to investigate are:

- Which elements of assessment design are more likely to lead to development and growth of student autonomy?
- Which assessment practices most effectively empower students to own and advance their learning over time?
- How can we effectively involve students in their own assessment?
- How can we pursue equity through assessment?
- What is worthy evidence of growth in student autonomy?

We have developed the following principles to stimulate deeper conversations among educators about the role of assessment in learning. Not all of the principles may be as meaningful or necessary in different contexts. How educators engage with them and which ones they rely on as primary entry points to new learning will vary. However, we offer all of them to be questioned and improved by those who put them into practice, and to inform conversations in schools, districts and states about systems of assessments that are more likely to support more students to readiness and success – especially those students who are chronically under-served.

1) Provide accessible and actionable information that enables further learning
   A system of assessments that supports student autonomy and enhanced ownership of learning provides information to teachers and to students in time to be useful for (1) instructional decision-making, (2) guiding students' attention to their own learning through meaningful and targeted feedback, (3) helping students enhance self-knowledge so that they better understand who they are and what they want to become, and (4) identifying community and cultural assets to support greater access and opportunity to learn for all students. Information provided by a system of assessments is useful in these ways when it reveals specific areas where students are struggling, highlights specific areas where students are on firm ground, and then fosters students' reflection on their approaches to learning. This information can be used by teachers to adapt learning tasks and activities to support students and help them to work through the specific challenges that may hinder their progress or achievement of their goals. Where teacher intervention or support is less necessary or desirable, this information can be used by students to inform their individual choices about where more work or help is needed to achieve deeper understanding.

   The classic example of an assessment that does not reflect this principle is the standardized test whose abstracted, averaged score comes half a year after it was taken (if it comes to the student at all).

What helps develop student autonomy is an assessment that provides timely feedback and prompts reflection that can guide a student's work on the same or similar task in the near future: revising a lab report, for example, or having another attempt at a collaborative project.

Peer Feedback: WestEd's Student Agency in Assessment and Learning (SAAL) project focus on supporting student autonomy through peer feedback. In peer feedback the focus is on interactive sharing of information between peers about how learning is progressing. Peers provide feedback on their work related to specific criteria that is intended to help one another reflect on their own learning and determine next steps for themselves. In this way, peer feedback assists students to engage in a cyclical process of determining next steps (goals), planning how they will reach those goals, monitoring implementation of their plan, and receiving feedback about progress. In the SAAL project, teachers use a continuum that describes a novice or incomplete implementation to a more expert level of implementation to support peers in providing effective feedback to each other.

2) <u>Comprise assessments that are understood, embraced, and valued by students as authentic and worthwhile</u>
By "authentic," we mean tasks that closely replicate the nature of the activity and skills being assessed and that do that so in a context that mimics as closely as possible the actual situation in which the activities take place. For example, a certification for systems administrator includes a test that determines if the examinee has the specific knowledge and skills necessary to assume the role of systems administrator and does so by placing the examinee in situations a system administrator is likely to encounter. Students engaged in internships may be given assessments that are the actual task they are expected to do in the workplace. An intern working on a design team in an architectural office may be asked to review and critique a draft building plan. The results will be shared with the rest of the team, and the intern will receive feedback on the quality of the critique offered. In internships requiring the operation of machinery, the intern may not be allowed to operate the machinery until demonstrating the ability to do so. In a hospital, an intern may have to demonstrate knowledge of safety procedures and the ability to follow them before being allowed near patients. In a classroom, students may be asked to be attorneys in a moot court in which they must prosecute or defend a case to demonstrate a range of skills including analytic reading, ability to organize an argument, and oral presentation skills. The students might be judged by members of the legal profession who volunteer to come into the school for a day to do so.

If students understand, embrace, and value assessments as authentic, they will be more likely to view assessments as having genuine worth, both as they experience them and use the information from them to enhance learning. "Understand" in this context means that students know the goal and the reason why the demonstration required by an assessment may be necessary for them to improve their learning. "Embrace" does not mean that students must love the assessment; it means that they willingly —and, in a perfect world, voluntarily — undertake it and are provided some opportunities to express their learning through multiple modalities. "Value" signifies relevance to aspirations that students genuinely feel, whether through extrinsic or intrinsic motivators. Assessments that lie outside of this zone not only lose much of their benefit to improve performance, they also risk producing false information based on less-than-optimum effort and by testing content not valid for understanding student performance in relation to personal aspirations.

Key questions we hope educators will want to investigate are:
- How do we develop competency based assessments that are formative in nature and promote reflective thinking on the part of the learner about how to improve?
- How do we give scholars more opportunities to succeed with skills required to be a competent scientist on performance-based tasks?
- How can K-12 form partnerships with industry partners to develop meaningful assessment systems that can certify scholars as ready for internships and industry level work?

3) <u>Align with a triad of curriculum, instruction, and assessment.</u>
When students know what is expected of them and how their learning will be measured, they can take greater control over how they go about their learning. Coherent, coordinated curriculum, instruction, and assessment create a framework within which student autonomy in learning can thrive. Implementing this principle necessitates more measures that derive from classroom practice combined with large-scale assessments that capture information about the choices students make and the ways they exert control over learning. This requires more conscious planning of assessments that are sensitive to curriculum and instruction, while also providing opportunities for students to apply knowledge and skills across content domains. An example is the International Baccalaureate (IB) model, where each course has a common set of aims and objectives that teachers must teach to and assess. Assignments allow students to make choices about content, manage their time, study alone or with others, and produce multiple versions of work. The aims and objectives also suggest desirable instructional methods. The IB model challenges students to apply content and skills across curriculum areas and in inter-disciplinary projects they design themselves.

4) <u>Support students' ability to transfer knowledge and skills outside of school</u>
In its simplest form, transfer is the ability to take something learned in one setting and use it in another. Cognitive psychologists generally distinguish between near transfer and far transfer. Near transfer occurs when the learner applies what is learned in a very similar context, as when a student who is taught a math technique on the board then practices the technique in a word problem. Far transfer is more challenging to achieve. It requires the learner to apply the learning in a very different or dissimilar context. Getting students to apply what they know about English grammar, spelling, and punctuation to a paper written in science class can be a problem of far transfer for students who have compartmentalized their learning to the degree they do not use what they learn in one class when it is appropriate to do so in another class.

Assessments can support transfer by assisting students to think deeply about their learning when they offer a more holistic approach - unlike standardized tests- and when they require students to demonstrate understanding, and produce evidence of applied learning. For example, carefully designed assessment, as in the IB model described above, can explicitly support transfer by enabling learners to apply their learning to a fresh context as authentically as possible. In this way, curriculum, instruction, and assessment work together to build student autonomy and transferring ability. Here is a specific example of this principle: In order to graduate from his Envision high school, Kaleb Lawson had to defend a portfolio of his work before a panel. It was the culminating moment of a larger performance assessment system that functioned over his four years at the school. That system was designed not simply to gather evidence about his college and career readiness; it was designed to help Kaleb and his peers understand what it means to be college and career ready, and for that understanding to boost their capacity for autonomy.
"The grad portfolio taught me lessons that I have carried into the work world," Kaleb says, now in his mid-twenties. "For example, the job I have right now came out of a temp position. It wasn't handed to me, and I could tell that it wasn't going to be. First, I had to figure out what I wanted. Then I had to size up the situation, document my work, prove my diligence. In the end, I had to make a case [emphasis Kaleb's] that I was someone this firm should bring on full time. And I had a sense of how to go out about it because I had practiced this before [emphasis ours]."

5) <u>Create opportunities to build self-knowledge</u>

By helping students become critically aware of the forces and influences that shape their identity, assessment, at its best, helps students discover who they are in the world. In doing so, they become co-creators of knowledge and examiners of the conditions of their own existence. In this vein, by enabling students to act on information more than information acting on them, assessment helps to shape their sense of self.

Similarly, assessment should not simply be done to students but should result in their gaining insights that helps them set and revise goals. To do this, assessment needs to inform students where they stand in relationship to a goal, help them monitor their progress toward that goal, and understand what they need to learn next and how they will learn it. This requires a range of measures and methods so students can become aware of their personal assets and understand the possibilities for personal growth available to them.

As a vehicle for insight into themselves as human beings and their relationship to knowledge, assessment can provide students with cognitive skills such as critical inquiry and analysis, and the capacity to interrogate the norms and conventions of the wider world rather than accepting them as fixed realities.

6) <u>Promote Equity</u>
Equity and assessment are not necessarily natural partners. Assessments by their very nature result in judgments about performance. Such judgments can be biased by a range of factors. To meet the equity principle, assessment must provide all students with comparable the opportunities to show where they are in their learning of concepts and skills they have had equitable opportunities to learn, and to receive feedback from the information assessment yields that supports the closing of any achievement or learning gap. Assessment has an important role in allowing each child to receive what he or she needs to reach full academic and social potential. To this end, assessment tasks must: 1) be designed to give students a sense of accomplishment; 2) challenge the upper reaches of student's understanding; 3) provide a window on each student's thinking and skills; 4) accommodate differences in the ways that students think about and display understanding; and 5) reflect the lived and cultural experiences and aspirations of varied groups (NRC, 1993).

An equally important consideration for equity is the use of assessment data. Teachers need to use the information from assessment tasks in ways that lead to genuine and appropriate opportunities for all students to advance from where they are to where they can go next, with appropriate support, and assist students in monitoring their progress and making decisions about actions they need to take to move their learning forward, so that they are continuously increasing their capacity for autonomy in learning.

In Conclusion
While this paper focuses on a set of assessment design principles that promote the development of student autonomy as essential to college, career, and civic readiness, we hope that it stimulates discussion that informs other issues of policy and practice, such as:
- To what extent the development of autonomy or agency in students is dependent upon the development of that same mindset in the teachers who support them?
- In a system of assessments, what is the appropriate role for student choice and engagement or co-creation in the design of assessments?
- What would it take to bring these principles to life in learning communities? What resources and supports would students and teachers need?

REFERENCES

Boekarts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? Retrieved from http://www.unco.edu/cebs/psychology/kevinpugh/motivation_project/resources/boekaerts06.pdf, June 5, 2016.

Conley, D., & Darling-Hammond, L. (2013). Creating systems of assessment for deeper learning. Retrieved from https://edpolicy.stanford.edu/sites/default/files/publications/creating-systems-assessment-deeper-learning_0.pdf

Ferguson, R. F., Phillips, S. F., Rowley, J.F.S., & Friedlander, J. W. (2015, October). The influence of teaching: Beyond standardized test scores: engagement, mindsets, and agency. Retrieved from http://www.agi.harvard.edu/projects/TeachingandAgency.pdf

Pintrich, P., R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. Educational Psychology Review 16(4). 385-407

National Research Council. (2012). Education for life and work: Developing transferable knowledge and skills in the 21st century. Washington, DC: The National Academies Press.

National Research Council. (1993). Measuring what counts: A conceptual guide for mathematics assessment. Washington, D.C: The National Academies Press.

Nicol, D. J. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. Studies in Higher Education, 31(2), 199-218.

Zimmerman, B. J., & Schunk, D. H. (2011). Self-regulated learning and performance. In B. J. Zimmerman & D.H Schunk. (Eds.). The handbook of self-regulation of learning and performance. (pp. 1-15). New York: Routledge.

HOW TO CITE THIS PAPER

William and Flora Hewlett Foundation Assessment for Learning Working Group (2017). *Principles for Assessment Design and Use to Support Student Autonomy*. Lexington, KY: Center for Innovation in Education.

If you would like to be involved in futher development and investigation of these ideas in practice, please contact:
- *Margaret Heritage, mheritag@ucla.edu, or*
- *Linda Pittenger, linda.pittenger@uky.edu*